

Chapter 3. Vegetation Management Challenges

INTRODUCTION

As a result of the risk assessment and EIR, and after the Director's vegetation control directive (Appendix C) was issued and the RVMC and PALs were established, a study was conducted to determine the extent and type of vegetation management challenges Caltrans faces; how the districts were meeting the challenges; and the appropriateness of strategies being used, in addition to other potential alternative methods of vegetation management.

This chapter describes the complexity and variability of the issues Caltrans faces, the seven vegetation management challenges that affect the entire state, and each district's current vegetation management challenges and particular vegetation management practices.

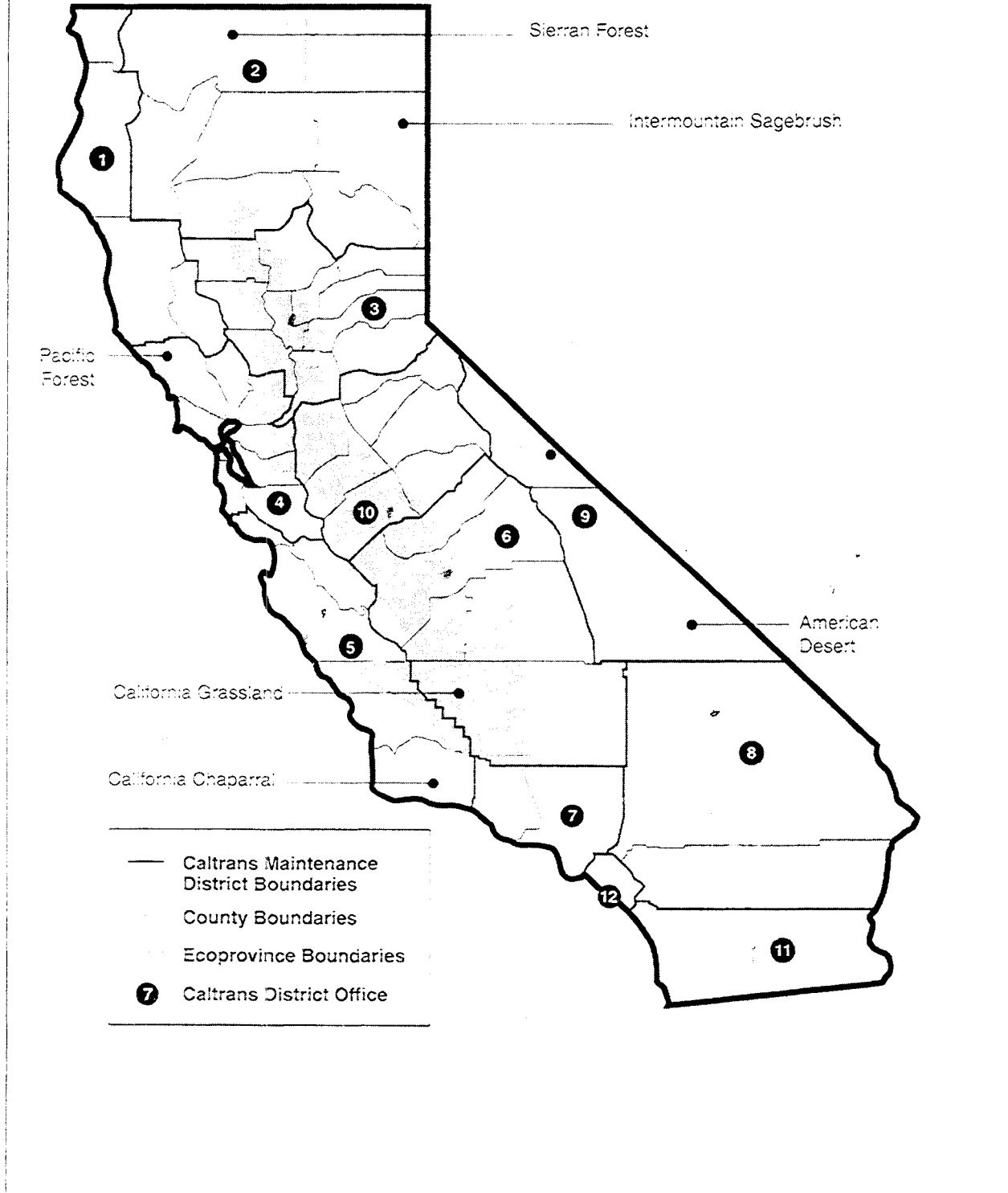
VEGETATION MANAGEMENT VARIABLES

Environmental Diversity

California can be divided into six ecoprovinces with a diversity of vegetation and vegetation management challenges. The location, climate, landform and geology, soils, vegetation, wildlife, fisheries, water quality, and typical land uses of each ecoprovince are described in the draft EIR for Caltrans' vegetation control program (Jones & Stokes Associates, 1991). These factors have an important influence on vegetation management. Figure 3.01 shows ecoprovince boundaries relative to district boundaries:

- the Northern California coast is in the Pacific Forest Ecoprovince;
- the Central Valley is in the California Grassland Ecoprovince;
- portions of the Cascade Range in California and the Sierra Nevada are in the Sierran Forest Ecoprovince;
- the eastern Coast Ranges of Northern California and the central and southern California coastal areas are in the California Chaparral Ecoprovince;

California includes nearly every climate and landform type found in the world. This allows a great diversity of roadside species and appropriate management challenges.

Figure 3.01 California Ecoprovince

- California's portions of the Modoc Plateau and the Great Basin are in the Intermountain Sagebrush Ecoprovince; and
- the Mojave Desert, Death Valley, and Imperial Valley are in the American Desert Ecoprovince.

Variations in the Right-of-Way

In addition to facing different vegetation management challenges based on ecoprovince, Caltrans also faces challenges based on cultural and economic diversity which affect characteristics of the roadway, roadside, and the adjacent corridor. Sprawling cities, remote towns, and myriad industries place ever-changing and unrelenting demands on California's highway network, which ultimately influence the form and design of the highway. The traveled way, median, and shoulder components of the roadway, while standardized and interrelated, can vary depending on the geography (e.g., suburban, urban, or rural), topography, adjacent land use, traffic volume, and safety considerations for motorists and Caltrans workers.

Associated features such as overpasses, underpasses, interchanges, ramps, rest areas, and safety devices also vary, affecting vegetation management methods. The variations in roadway components and associated features lead to differences in elements of the right-of-way (e.g., guard rails) and variations in the challenges of vegetation management. For example, controlling vegetation that grows around and under guard rails is difficult and time consuming. The following district-by-district review highlights the major variables found in each district and the effect on vegetation management issues within each district.

See Figure 3.02, Right-of-Way Variables; Figure 3.03, Segment-Specific Roadway Variables; and Figure 3.04, Typical Right-of-Way Cross Section.

The diversity of culture and industry in California compounds vegetation management challenges. A highway presents varying roadside management challenges that require different strategies as it passes through urban, suburban, rural, agricultural, or park land use areas.

Figure 3.02 Right-of-Way Variables

